

Claims

1. Device (3) for climate control of a motor vehicle seat (20) with a cushion core (22) for the support of a passenger, having an upper air distribution device (25) at a front side (27) of the cushion core (22) facing the passenger to distribute air along the front side (27) of the cushion core (22), and having a lower air distribution device (32) at its rear side (30) facing away from the passenger to distribute air along the rear side (27) of the cushion core (22), having a connecting device (35) to transfer air between the first and second air distribution devices (25, 32), **characterized in that** each of the three devices (25, 32, 35) has an elongated hollow space (37), and in that at least one support element (14) in the form of a spiral spring is provided in the air-conducting cross-section of at least one such hollow space (37).
2. Device according to claim 1, **characterized in that** at least one of the three devices (25, 32, 35) is provided with a base layer (8), an intermediate layer (10) and a cover layer (12), wherein the layers (8, 10, 12) are arranged so as to at least partially overlap one another, wherein the intermediate layer (10) has at least one support element (14) for the transmission of mechanical loads between the base layer (8) and cover layer (12), and in that additional, preferably electrical, functional elements (18) are arranged in the space remaining between the base layer (8), the cover layer (12) and the support element (14).

3. Device according to one of the preceding claims, **characterized in that** the functional element (18) is a sensor (40) for detecting pressure and/or temperature and that said sensor is arranged directly under the support element (14).
4. Device according to one of the preceding claims, **characterized in that** the functional element (18) is an electrical conductor, especially a flat cable, a round cable, and/or a heating conductor (44), and is preferably equipped with at least one, preferably a plurality of, heating components, preferably PTC elements.
5. Device according to one of the preceding claims, **characterized in that** the connecting device (35) has at least one, in particular vertically arranged, recess (68) in the cushion core, which preferably is connected to the intermediate layer (10) of the upper air distribution device (25) and/or to the intermediate layer (10) of the lower air distribution device (32), in such a manner as to permit the passage of air.
6. Device according to one of the preceding claims, **characterized in that** at least a portion of the intermediate layer (10) is routed around the cushion core (22) at the side thereof from its front side (27) to its rear side (30), and in that a conducting device (42), preferably an electrical conductor (43) is accommodated in said portion.

7. Device according to one of the preceding claims, **characterized in that** the device has in the cushion core multiple recesses (68, 68') which preferably connect multiple individual sections (70, 70') – which sections are preferably separated from one another and spaced apart – of the intermediate layer (10) arranged on the cushion core (22), and/or of the upper air distribution device (25), to the intermediate layer (10) arranged under the cushion core (22) and/or to the lower air distribution device (32).
8. Device according to one of the preceding claims, **characterized in that** the device is joined to the cushion core (22) by foam molding during the manufacture of said cushion core, and to this end preferably an essentially liquid-impermeable layer (76) is provided which is arranged on the side of the intermediate layer (10) facing the cushion core (22), and which preferably is made of the same material as the cushion core (22), in particular polyurethane.
9. Device according to one of the preceding claims, **characterized in that** at least one conductor, in particular a heating conductor (44), is provided which is arranged in particular in at least one intermediate space (88) between at least two support elements (14) in the intermediate layer (10), or which is arranged in particular in an intermediate space (90) formed by a support element (14) in the intermediate layer (10).

10. Device according to one of the preceding claims, **characterized in that** a plurality of elongated, in particular essentially parallel, intermediate spaces (88, 88') are formed by the support elements (14), in that at least one, preferably insulated, heating conductor (44) is arranged in at least two such intermediate spaces (88, 88'), and/or in that the heating conductor (44) is fixed to the device, in particular to the base layer and/or cover layer (8, 12), at the transition (92) from one intermediate space (88) to the other intermediate space (88'), in particular by a strip (94) of adhesive material, which is arranged in particular essentially perpendicular to the intermediate spaces (88, 88').